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☐ **1: GI = "4507486" [GenBank]** Homo sapiens thrombospondin... PubMed, Protein, Related Sequences. ‹

```
LOCUS       NM_003247   5784 bp    mRNA              PRI       31-OCT-2000
DEFINITION  Homo sapiens thrombospondin 2 (THBS2), mRNA.
ACCESSION   NM_003247
VERSION     NM_003247.1  GI:4507486
KEYWORDS    .
SOURCE      human.
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1  (bases 1 to 5784)
  AUTHORS   LaBell,T.L., Milewicz,D.J., Disteche,C.M. and Byers,P.H.
  TITLE     Thrombospondin II: partial cDNA sequence, chromosome location, and
            expression of a second member of the thrombospondin gene family in
            humans
  JOURNAL   Genomics 12 (3), 421-429 (1992)
  MEDLINE   92217961
REFERENCE   2  (bases 1 to 5784)
  AUTHORS   LaBell,T.L. and Byers,P.H.
  TITLE     Sequence and characterization of the complete human thrombospondin
            2 cDNA: potential regulatory role for the 3' untranslated region
  JOURNAL   Genomics 17 (1), 225-229 (1993)
  MEDLINE   94010892
COMMENT     PROVISIONAL REFSEQ: This record has not yet been subject to final
            NCBI review. The reference sequence was derived from L12350.1.
FEATURES             Location/Qualifiers
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FIG. 1a

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                   domains"
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                   domains"
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                   /note="putative"
                   /citation=[2]
polyA_site         5784
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     61 cggcatataa agccgcgctg cccgggagcc gctcggccac gtccaccgga gcatcctgca
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    301 aggacaaaga cacgaccttc gaccttttca gtatcagcaa catcaaccgc aagaccattg
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```

FIG. 1b

```
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 541 tggctctgga gggccccggt ctctcccaga ggcagttcga gatcgtctcc aacggccccg
 601 cggacacgct ggatctcacc tactggattg acggcacccg gcatgtggtc tccctggagg
 661 acgtcggcct ggctgactcg cagtggaaga acgtcaccgt gcaggtggct ggcgagacct
 721 acagcttgca cgtgggctgc gacctcatag gaccagttgc tctggacgag cccttctacg
 781 agcacctgca ggcggaaaag agccggatgt acgtggccaa aggctctgcc agagagagtc
 841 acttcagggg tttgcttcag aacgtccacc tagtgtttga aaactctgtg gaagatattc
 901 taagcaagaa gggttgccag caaggccagg gagctgagat caacgccatc agtgagaaca
 961 cagagacgct gcgcctgggt ccgcatgtca ccaccgagta cgtgggcccc agctcggaga
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1201 ggcaggatgg ccggttcttt gcggaaaatg aaacgtgggt ggtggacagc tgcaccacgt
1261 gtacctgcaa gaaatttaaa accatttgcc accaaatcac ctgcccgcct gcaacctgcg
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3781 caatgccctg tgcatgccat ggtccctaga cacctcagtt cattgtggtc cttgcggctt
3841 ctctctctag cagcacctcc tgtcccttga ccttaactct gatggttctt cacctcctgc
3901 cagcaacccc aaacccaagt gccttcagag gataaatatc aatggaactc agagatgaac
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FIG. 1c

```
4021 tgggcatgcc attacattgc tttttcttgt ttgtttaaaa agaatgacgt ttacatataa
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4141 cattatgata aattaagcat gaaaaatatt gctgaactac ttttggtgct taaagttgtc
4201 actattcttg aattagagtt gctctacaat gacacacaaa tcccgctaaa taaattataa
4261 acaagggtca attcaaattt gaagtaatgt tttagtaagg agagattaga agacaacagg
4321 catagcaaat gacataagct accgattaac taatcggaac atgtaaaaca gttacaaaaa
4381 taaacgaact ctcctcttgt cctacaatga aagccctcat gtgcagtaga gatgcagttt
4441 catcaaagaa caaacatcct tgcaaatggg tgtgacgcgg ttccagatgt ggatttggca
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4741 aaatattttg ttaatattta ttaagtgact atagaatgca actccattta ccagtaactt
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5041 attcttttaa ttcaaacgct gaaaacgaat cagcatttag tcttgccagg cacacccaat
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5581 gtaccatatt ttttgtaaat tatttatgtt tttctaaaca aatttatcgt ataggttgat
5641 gaaacgtcat gtgttttgcc aaagactgta aatatttatt tatgtgttca catggtcaaa
5701 atttcaccac tgaaaccctg cacttagcta gaacctcatt tttaaagatt aacaacagga
5761 aataaattgt aaaaaaggtt ttct   (SEQ ID NO: 1)
```

FIG. 1d

Novel association found in Gene Quest with thrombospondin 2 (THBS2)

<u>Association</u>
Odds ratios (with 95% confidence intervals) for association of THBS2 genotypes with CAD and MI in the Gene Quest population.

THBS2	CAD cases	controls	Odds ratios (95% C.I.)	P value	adjusted ORs (95% C.I.)	P value
tt	160 (.48)	207 (.51)	1.0	-	1.0	
tg	153 (.46)	158 (.39)	1.25 (.93-1.70)	.15	1.24 (.88-1.76)	.23
gg	17 (.05)	39 (.10)	.56 (.31-1.03)	.06	.65 (.34-1.26)	.20
			$\chi2$ p value=.025			

THBS2	MI cases	controls	Odds ratios (95% C.I.)	P value	adjusted ORs (95% C.I.)	P value
tt	84 (.47)	207 (.51)	1.0	-	1.0	-
tg	87 (.49)	158 (.39)	1.36 (.94-1.95)	.10	1.38 (.92-2.09)	.12
gg	6 (.03)	39 (.10)	.38 (.16-.93)	.03	.39 (.15-1.03)	.06
			$\chi2$ p value=.0085			

*the $\chi2$ statistic tests for a difference in the distribution of genotypes in the table of data
CAD=coronary artery disease
MI=myocardial infarction
Adjusted ORs=adjusted odds ratio
Heterozygotes show a (non-significant) trend for increased risk of MI. Homozygotes for the variant allele (g) appear to have a significant protective effect. Both of these effects are independent of BMI, hypertension, diabetes, current age and gender (see Oradj).

Multivariate logistic regression taking all three THBS genes into account for their association with MI.

GENOTYPE	N	OR (MI)	P (MI)
TSP1_NN	177	1.00	-
TSP1_SN	52	1.07	.76
TSP1_SS	5	8.44	.06
TSP2_tt	103	1.00	
TSP2_tg	106	1.54	.03
TSP2_gg	9	0.51	.12
TSP4_AA	133	1.00	-
TSP4_AP	94	1.79	0.004
TSP4_PP	14	1.54	.31

FIG. 2